



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application	)	
No. 10/618,465	)	For: METHOD AND APPARATUS
	)	FOR TIME EFFICIENT
	)	RETRANSMISSION USING
CHEN et al.	)	SYMBOL ACCUMULATION
	)	
Examiner: Unknown	)	
	)	
Filed: 7/11/2003	)	Group No. Unknown

INFORMATION DISCLOSURE STATEMENT  
UNDER 37 CFR § 1.97

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Commissioner:

Applicants through their attorney submit herewith, in accordance with 37 CFR §1.98, a list references of which they are aware, which they believe may be material to the examination of this application and with respect to which there may be a duty to disclose in accordance with 37 CFR § 1.56.

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CERTIFICATE OF MAILING/TRANSMISSION (37 CFR 1.8(a))

I hereby certify that this correspondence is, on the date shown below, being:

**MAILING**

- ☒ deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Depositor's Name: Karyn D. Lao  
(type or print name)

Date: 10/14/2003

Signature: 

**FACSIMILE**

- ☐ transmitted by facsimile to the Patent and Trademark Office.

Depositor's Name: \_\_\_\_\_  
(type or print name)

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

These have been previously submitted in the co-pending U.S. application serial no. 09/588,434 filed June 6, 2000, entitled "METHOD AND APPARATUS FOR TIME EFFICIENT RETRANSMISSION USING SYMBOL ACCUMULATION," and currently assigned to the assignee of the present application.

One of the references, DE 4241618 A, is not in the English language. An English-language Abstract for reference DE 4241618 A is enclosed herewith.

While the references identified herein may be material to the examination of this application pursuant to 37 CFR § 1.56, the citation of these references is not intended to constitute an admission that any reference referred to herein is prior art to the invention of this application unless specifically designated as such.

The filing of this document shall not be construed to mean that any search has been made or, that if made such search was complete or exhaustive, or that no other material information as defined in 37 CFR § 1.56 exists.

A list of the references cited herein is set forth on Form PTO-1449, which is enclosed herewith. In accordance with 37 CFR § 1.98(d), Applicants are not required to submit copies of the references and accordingly, have not provided copies herewith. Applicants respectfully request that the Examiner return to Applicants the enclosed copy of the Form PTO-1449 indicating consideration of the references.

The subject application is believed patentable over any of the above-references.

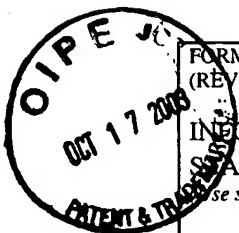
Respectfully submitted,

Dated: 10/13/2003

By:

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FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (REV. 7-80) PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. PA470D1C1	APPLICATION NO. 10/618,465
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		APPLICANT CHEN et al.	
		FILING DATE 7/11/2003	GROUP Unknown
DATE MAILED: 10/14/2003			

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	Ref No	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPRO- PRIATE
	A1	5,614,914	3/25/1997	Bolgiano, et al.			
	A2	5,506,865	4/9/1996	Weaver, Jr.			
	A3	5,087,900	1/28/1992	Taylor			
	A4	5,983,382	11/9/1999	Pauls			
	A5	6,317,418	11/13/2001	Raitola et al.			
	A6	6,289,003	9/11/2001	Raitola et al.			
	A7	5,745,502	4/28/1998	Khayrallah et al.			

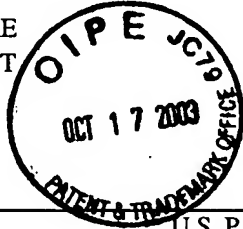
## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	Ref No	DOCUMENT NUMBER	DATE	COUNTRY	NAME	CLASS	SUB CLASS
	B1	98/49785 A	11/5/98	WO	Qualcomm		
	B2	97/37459 A	10/9/97	WO	Ericsson		
	B3	4241618 A	6/16/94	DE	Deutsche Forsch Luft Raumfahrt		
	B4						
	B5						

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Page, Etc.)

	C1	David Chase, "Code Combining- A Maximum-Likelihood Decoding Approach for Combining an Arbitrary Number of Noisy Packets," IEEE Transactions on Communications, vol. 33, no. 5, May 1985, pages 385-393.
	C2	Mike Ketseoglou, R-RAKE: A Concept Suitable for IMT-2000, New Orleans, LA, January 5-9, 1998, pages 1-16.
	C3	Mike Ketseoglou, Application of R-RAKE in 3 <sup>rd</sup> Generation IS-95, New Orleans, LA, January 5-9, 1998, pages 3 and 5.
EXAMINER		DATE CONSIDERED
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.		

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EXAMINER INITIAL	Ref No	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPRO- PRIATE
	A8	3,868,633	2/25/1975	Nuese			
	A9	6,126,310	10/3/2000	Osthoff et al.			
	A10	5,954,839	9/21/1999	Park et al.			
	A11	5,828,677	10/27/1998	Sayeed et al.			
	A12	6,101,168	8/8/2000	Chen et al.			
	A13	5,084,900	1/28/1992	Taylor			

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	Ref No	DOCUMENT NUMBER	DATE	COUNTRY	NAME	CLASS	SUB CLASS
	B4						
	B5						

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Page, Etc.)

	C4	Samir Kallel, "Complementary Punctured Convolutional (CPC) Codes and Their Use in Hybrid ARQ Schemes," IEEE Pacific Rim Conference on Communications, Computers and Signal Processing, vol. 1, May 19-21, 1993, pages 186-189.
	C5	David Mandelbaum, "An adaptive-feedback coding scheme using incremental redundancy," IEEE Transactions on Information Theory, vol. 20, issue 3, May 1974, pages 388-389.
	C6	P. Decker, "An Adaptive Type-II hybrid ARQ/FEC Protocol suitable for GSM," 1994 IEEE 44 <sup>th</sup> Vehicular Technology Conference, vol. 1, 1994, pages 330-333.
	C7	Ajay Dholakia et al., "High Speed Table-Driven Correction and Decoding in Convolutionally Encoded Type-I Hybrid-ARQ Protocols," Communications on the IEEE Military Communications Conference record, MILCOM '93, vol. 3, 1993, pages 939-943.
	C8	Hang Liu et al., "Performance of H.263 Video Transmission over Wireless Channel Using Hybrid ARQ," IEEE Journal on Selected Articles in Communications, vol. 15, no. 9, December 1997, pages 1775-1786.

EXAMINER	DATE CONSIDERED
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	